## WHAT IS CLAIMED IS:

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1. An image sensor package to be electrically connected to a printed circuit board, the image sensor comprising:

a plurality of lower metal sheets arranged in an array, each of the lower 5 metal sheets having an upper surface and a lower surface;

a plurality of upper metal sheets arranged in an array, each of the upper metal sheets having an upper surface and a lower surface, wherein the upper metal sheets are shorter than that of the lower metal sheet, the lower surfaces of the upper metal sheets being stacked on the upper surfaces of the lower metal sheets, so as to part of the upper surface of the lower metals sheets are exposed from the upper metal sheets;

an encapsulant for encapsulating the lower metal sheets and the upper metal sheets, wherein the upper surfaces of the lower metal sheets are exposed from the encapsulant, the lower surfaces of the lower metal sheets are exposed from the encapsulant and electrically connected to the printed circuit board, and the encapsulant is formed with a frame layer around the upper surfaces of the upper metal sheets to define a chamber together with the upper metal sheets;

a photosensitive chip arranged within the chamber;

a plurality of wires for electrically connecting the photosensitive chip to the upper surfaces of the lower metal sheets;

a transparent layer arranged on the frame layer of the encapsulant to cover

the photosensitive chip.

- 2. The image sensor package according to claim 1, wherein the encapsulant is made of industrial plastic material, and the encapsulant and the frame layer are integrally formed.
- 5 3. The image sensor package according to claim 1, wherein the transparent layer is a piece of transparent glass.

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